

This guide is for potential applicants to the U.S. Department of Education (DoED) Small Business Innovation Research (SBIR) program. The document identifies unique aspects of the DoED SBIR program, describes the nature of its interests, and links readers to additional agency resources. When used in conjunction with MTIP's Profile of a Good Candidate, this guide will help prospective applicants determine quickly whether to pursue funding under the DoED SBIR program and how best to approach a proposal.



THE SBIR/STTR PROGRAMS

The federal SBIR program is a source of early-stage R&D seed capital exclusively for small, tech-based U.S. companies engaged in serious R&D and commercialization of technologies of interest both to the government and to the company. Applicants submit proposals in response to specific topics released by each of the 11 participating agencies. Within each agency, the rules and requirements frequently change from one solicitation to the next. Prospective applicants must monitor closely each targeted agency's solicitations.

SBIR funding is provided as either grants or contracts, and does not have to be matched or repaid by the small business. The award monies can be used to fund most costs associated with the R&D project and up to a 7% profit margin. The company maintains ownership of any new intellectual property, and the government retains certain rights to use the technology.

SBIR is a three phase program starting with Phase I to establish the technical feasibility of the proposed technology. Phase I awards vary, but can be as high as \$225,000 for periods ranging from 6 to 12 months. Phase II is to perform more in-depth R&D on the technology, ideally moving toward prototyping and demonstration. Phase II awards range as high as \$1.5 million, generally for a period of up to two years. The objective of Phase III is commercialization of the technology. This phase is non-funded though some agencies offer extra assistance in the form of commercialization support programs.

In SBIR Phase I, up to 33% of the total budget may go to outside services, including consultants and subcontractors. In Phase II, this figure rises to 50%. In addition, for both Phase I and II, the Principal Investigator (PI) must be employed by the company for greater than 50% of ordinary work hours for the duration of the project.

Overall, agencies report that the chance of winning a Phase I award ranges from ~7% to ~15%. Well-qualified Montana applicants can substantially improve these odds by working closely with the no-cost services offered by the Montana Technology Innovation Partnership (MTIP). If not currently enrolled for MTIP services, see the information box at the end of this guide.

THE DoED SBIR PROGRAM

The DoED's SBIR program operates out of its research arm, the Institute of Education Sciences (IES). It accepts proposals through two tracks. An education track funds the R&D of products to improve student learning directly or indirectly in authentic education delivery settings. A special education track funds the R&D of products for use by infants, toddlers, or students with or at risk for disabilities or teachers in early intervention or special education. DoED/IES SBIR information can be viewed at: <http://ies.ed.gov/sbir>.

DoED now releases only one annual competition, coming out in late fall and closing within 45 days. Two solicitations are released. One is focused on Phase I projects for the two tracks of interest, and the other is for FastTrack, under which firms can submit a combined Phase I and II proposal simultaneously. This option offers the potential to eliminate a funding gap between Phase I and Phase II, but is only suitable for scientifically meritorious proposals that have a high potential for commercialization.

The DoED program attracts educators nationwide and is highly competitive, with fluctuating availability of research funds (for example, in 2014, DoED received 252 proposals and made only 12 Phase I awards). Phase I feasibility projects are presently funded for up to \$150,000 for a work plan that lasts 6 months. After completion of the Phase I stage, most of these businesses can compete for Phase II awards up to \$900k that can last up to 24 months. A FastTrack combined Phase I & II can be awarded up to \$1,050,000

The DoED offices are highly focused on innovation. A phase I under DoED must describe the education problem an innovation will address, the intended product to be implemented, the intended outcome from using the product, and the theory of change for the proposed product (exactly, how it will lead to the desired student or teacher outcomes). The phase I proposal must include one letter of agreement from an education setting for participation in the research. Project Narrative content is extensively detailed in the *DoED Program Solicitation Request for Proposals*.

IDENTIFYING AN APPROPRIATE TOPIC

DoED seeks applications for the development of education technology products. Project abstracts from past awardees can be instrumental in understanding the agency interests. The DoED 2015 SBIR Phase I awards can be viewed at: <http://ies.ed.gov/sbir/2015awards.asp>.

DoED priorities are focused on commercially-viable education technology products designed to improve student learning in education and special education settings. The product may be for use by students, teachers or other instructional personnel in education, including family members in early intervention or special education.

CONTACTING THE AGENCY

Applicants are strongly encouraged to communicate with the DoED Program Contact (PC) represented at the DoED/IES website: <http://ies.ed.gov/sbir/contact.asp>. The PC is permitted to address questions about the program or provide technical assistance related to project ideas. After the release of the annual solicitation, the PC is no longer available for consultation.

A good way to approach the PC is by sending a 1-2 page write-up on the prospective project technology and scheduling a follow-up phone discussion. This write-up should begin with a clear, concise statement of the problem to be addressed and how that problem is presently being handled. Then, describe the team and its credentials, the technology being proposed as a solution including an explicit statement of its innovation, and a brief explanation of the commercial potential. Be prepared with many questions to ask of the PC. This is not the time to provide a long-winded explanation of the company and its technology.

PREPARING/SUBMITTING THE PROPOSAL

The purpose of the proposal is to provide sufficient information to persuade reviewers that the proposed research offers a unique and sound approach to addressing the need expressed in the DoED announcement. The proposal should be written at a level of quality suitable for publication. Following are general recommendations for ways in which applicants can enhance their chances for success:

- **Start early.** The DoED posts previous solicitations that will permit valuable insights for advance planning and preparations. Proposal submission requires multiple electronic registration efforts that can require 6 to 8 weeks for completion. These include: 1. One-time registrations to obtain a DUNS number and an Employers' Identification Number (EIN); 2. A government contractor registration on the System for Awards Management (SAM); 3. An SBA Company Registry, or an update of the Registry for the new application; 4. A one-time only, registration at Grants.gov for access to the application forms package and to enable proposal submission.
- **Dive into planning.** Applicants can discuss their project and proposal approaches with an MTIP counselor. The project must be vetted in terms of the agency's review criteria and past awards. Give careful thought to any outside consultants or subcontractors, with the understanding that these individuals should strengthen the team's credentials. Identify necessary letters of support and set a plan for securing them.
- **Read the entire solicitation.** All SBIR agencies have specific requirements for font size and style, page limits, marking of confidential information, and other aspects of the proposal. Agencies routinely reject proposals that don't comply with these instructions. One person on the proposal team must be responsible for reading the instructions thoroughly, noting all requirements. Initiate a properly-formatted proposal template

that puts key guidance for each section into comment boxes for easy reference while writing. Use the agency website to find instructional webinars or other guidance specific to its process.

- **Develop a project plan that envisions both the Phase I and the Phase II R&D activities.** Start the writing effort by developing well-defined Technical Objectives. Follow the instructions carefully in writing this piece that is the backbone of the technical proposal. Outline a work plan for achieving the objectives, giving consideration to what must be performed in Phase I to create a good foundation for Phase II. For the DoED, the work plan must include a means (e.g. testing) to examine how the proposed product will lead to the proposed educational outcomes. Review these pieces to determine whether the project matches well with the topic and agency guidelines. Conduct a team meeting to get full buy-in on the proposed work plan AND on the proposal-writing efforts. Develop a schedule and assign responsibilities for completion of the proposal. Immediately start the process of collecting team Curriculum Vitae and letters of support.
- **Obtain an outside, third-party review.** Regardless of the applicant's experience with SBIR, secure an MTIP or other third party review of the draft proposal. Even the most experienced applicants have a tendency to get "off point" when working through the details of so many sections. Invariably, good outside reviews help ensure the proposal is responsive to the instructions and identify meaningful ways in which to enhance both the content and the presentation of the proposal. Provide the proposal to a reviewer not less than one week before submission so that suggested changes can be implemented.
- **Submit early.** Applicants should plan to submit their proposals at least two days prior to the final due date. Early submission avoids the possibility of server overload, and gives applicants ample time to resolve any problems that arise during the electronic submission process.

READY FOR THE NEXT STEP?

This agency-specific SBIR guide has been prepared by the Montana Technology Innovation Partnership (MTIP) and does not imply endorsement from the U.S. Department of Education. A program of the Montana Department of Commerce, MTIP provides free coaching to Montana technology-based companies seeking help in applying to federal and state R&D and commercialization funding programs. For more information, contact the MTIP Program Manager at (406) 841-2734 or visit MTIP's website at www.mtip.mt.gov.

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